



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,649	12/08/2003	Shimon B. Scherzer	65894/P001US/10314083	2987

50086 7590 01/19/2007
LAW OFFICE OF DAVID H. JUDSON
15950 DALLAS PARKWAY
SUITE 225
DALLAS, TX 75248

EXAMINER

MEW, KEVIN D

ART UNIT	PAPER NUMBER
----------	--------------

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/730,649	Applicant(s) SCHERZER ET AL.	
	Examiner Kevin Mew	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 16-27, 29-33, 37-44, 46-49, 51-54, 57-59, 61, 62 and 64-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30, 37-44, 52-54, 57-59, 61, 62 and 64-69 is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 16-27, 29, 31-33, 46-49 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on 10/18/2006 have been considered. Claims 13, 15, 28, 34-36, 45, 50, 55-56, 60, 63 have been canceled by applicant. Claims 1-12, 14-27, 29-34, 37-49, 51-54, 57-59, 61-62, 64-69 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laroia et al. (US Publication 2005/0073973) in view of Kubler et al. (US Publication 2005/0254475 A1).

Regarding claim 1, Laroia discloses a method for providing wireless communication (**multi-sector, multi-cell communications system**, see paragraph 0017 and Fig. 1), said method comprising:

providing a plurality of frequency channels (**different communication channels**, see paragraph 0026) in each of a plurality of portions (see sectors 1, 2, 3, 4, Fig. 1) of a service area (see element 100, Fig. 1), wherein a same frequency channel of said plurality of frequency channels is provided for use in two or more adjacent portions of said service area (**frequency reuse is achieved in all sectors**, see entire paragraphs 0024, 0025); and

mitigating interference associated with external interference sources (**reducing inter-sector interference**, paragraphs 0022) by making particular channels of said plurality of channels available for use by network nodes disposed in said portions of said service area based upon dynamically determined communication link metrics (**the classification of types of information and types of channels may be flexible and may be changed dynamically based on the system overall loading and user required data rate in order to provide different tolerable interference**, see paragraphs 0009 and 0033).

Laroia does not explicitly disclose the plurality of channels are provided in an unlicensed frequency band.

However, Kubler discloses a wireless communication method comprising an unlicensed frequency band of 27 MHz under which radio units operate (see paragraph 0380).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of providing a plurality of frequency channels of Laroia with the teaching of Kubler in employing the unlicensed frequency band for operating radio units.

The motivation to do so is that 27 MHz utilizes low power that is capable of reliably transferring information at a range of approximately 40 to 100 feet asynchronously at 19.2 kbps and also does not require FCC licensing.

Regarding claim 2, Laroia discloses the method of claim 1, wherein said mitigating interference comprises:

Art Unit: 2616

selecting a channel from said plurality of channels for communication with a particular network node (**network node 136**, Fig. 1) using adaptive dynamic channel selection to identify a channel having a best communication attribute with respect to said network node (**types of channels may be flexible and may be changed dynamically based on the system overall loading and user required data rate in order to provide different tolerable interference**, see paragraphs 0009 and 0033).

Regarding claim 3, Laroia discloses the method of claim 1, wherein said mitigating interference further comprises:

selecting a time division of said particular channels for use in communicating with particular network nodes based upon said dynamically determined communication link metrics (**each channel segment includes a determined duration of time**, see paragraph 004).

Regarding claim 4, Laroia discloses the method of claim 1, wherein said mitigating interference comprises:

selecting at least two channels from said plurality of channels for communication with a particular network node such that transmission of identical data on said at least two channels is provided for post data selection (see paragraphs 0028, 0029, 0041).

Regarding claim 5, Laroia discloses the method of claim 1, wherein said mitigating interference comprises:

selecting at least two channels from said plurality of channels for communication with a particular network node such that data is divided for transmission on said at least two channels for time/frequency coding (**two different types of channels for two different types of coding**, see paragraphs 0028, 0029).

Regarding claim 6, Laroia discloses the method of claim 1, wherein said mitigating interference comprises:

limiting transmission duty cycles of network nodes with respect to each active channel of said plurality of channels (**each channel is scheduled to transmit for a determined period of duration time**, see paragraph 0044).

Regarding claim 7, Laroia discloses the method of claim 1, wherein said dynamically determined communication link metrics comprise interference level information (**allowable user bit error rate**, see paragraph 0033).

Regarding claim 8, Laroia discloses the method of claim 1, wherein said dynamically determined communication link metrics comprise signal propagation level information (**user required data rate**, see paragraph 0033).

Regarding claim 9, Laroia discloses the method of claim 1, wherein said dynamically determined communication link metrics comprise traffic load information (**system overall loading**, see paragraph 0033).

Regarding claim 10, Laroia discloses the method of claim 1, wherein said dynamically determined communication link metrics comprise quality of service information (**user priority**, see paragraph 0033).

Regarding claim 11, Laroia discloses the method of claim 1, further comprising:
selecting network nodes for simultaneous use of said particular channels as a function of spatial characteristic groupings of said network nodes (**selecting nodes EN(1), EN(X), and so on in Fig. 1 for simultaneous use of the first type of communication channel depends on which sector the network nodes are located**, see paragraphs 0027, 0028, 0029 and Fig. 1).

Regarding claim 12, Laroia discloses the method of claim 1, wherein said each said frequency channel of said plurality of frequency channels (**first type, second type, and third type of communication channels**, see paragraphs 0027, 0028, 0029) is provided for use in all portions (**all sectors**) of said service area (see Fig. 1).

Regarding claim 14, Laroia discloses the method of claim 1, wherein said mitigating interference comprises assigning a different channel of said plurality of channels for use by a particular network node in an uplink and a downlink (see paragraph 0034).

3. Claims 16-27, 29, 31-33, 46-49, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laroia et al. (US Publication 2005/0073973) in view of Ma et al. (USP 7,042,858).

Regarding claim 29, Laroia discloses a wireless communication network system comprising:

a plurality of communication sectors of a service area (see sectors 1, 2, 3, Fig. 1), wherein each communication sector has a plurality of channels associated therewith (**each sector has first type, second type and third type of communication channels**, see paragraphs 0027, 0028, 0029), and wherein adjacent ones of said communication sectors have at least one same channel of said plurality of channels associated therewith (**second type of communication channel will be used where some of the utilized tones allocated to the adjacent sectors to transmit information**, see paragraph 0028), and

channel management control apparatus (base station 200, see Fig. 2) making particular channels of said plurality of channels available for use by network nodes of said network system as a function of external interference experienced with respect to one or more channels of said plurality of channels (**types of information and types of channels to use depends on the allowable user bit error rate**, see paragraph 0033);

Laroia does not disclose the channel management control apparatus implements at least two tier channel scheduling strategy, wherein a first tier of the channel scheduling strategy is executed centrally and a second tier of the channel scheduling strategy is executed distributedly.

However, Ma discloses a time slot scheduling strategy in a cellular communication system wherein a base station controller scheduler assigns a time slot for the associated base

stations that are on the active set list of performing soft handoff and the time slots not assigned by the base station controller scheduler are assigned to mobile terminals not participating in a soft handoff (col. 3, lines 15-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of providing a plurality of frequency channels of Laroia with the teaching of Ma in having a base station controller scheduler for scheduling time slot for the base stations and time slots for mobile terminals such that the channel management control apparatus implements at least two tier channel scheduling strategy, wherein a first tier of the channel scheduling strategy is executed centrally and a second tier of the channel scheduling strategy is executed distributedly.

The motivation to do so is to facilitate a flexible scheduling for soft handoff mobile terminals via the base station controller while allocating time slots for mobile terminals not operating in a soft handoff mode.

Regarding claim 16, Laroia discloses the system of claim 29, wherein the channel management control apparatus makes particular time divisions within said particular channels available for use by the network nodes as a function of dynamically determined channel conditions (see paragraphs 0033 and 0044).

Regarding claim 17, Laroia discloses the system of claim 29, wherein each channel of the plurality of channels is provided in each communication sector of the plurality of communication sectors (see paragraphs 0027, 0028, 0029 and Fig. 1).

Regarding claim 18, Laroia discloses the system of claim 17, wherein said plurality of channels comprise at least 3 frequency channels (**three types of communication channels**, see paragraphs 0027, 0028, 0029).

Regarding claim 20, Laroia discloses the system of claim 29, wherein the plurality of communication sectors comprise communication sectors of a multi-sectored base station (see multi-sectored base station, Fig. 1).

Regarding claim 21, Laroia discloses the system of claim 29, wherein the plurality of communication sectors comprise communication sectors of a plurality of base stations (**base stations**, see paragraphs 0037 and 0038).

Regarding claim 22, Laroia discloses the system of claim 29, wherein the channel management control apparatus (**base station 200**) is disposed in a central configuration with respect to a plurality of base stations of the communication network (see paragraphs 0037, 0038 and Fig. 2).

Regarding claim 23, Laroia discloses the system of claim 29, wherein the channel management control apparatus (**base station 200**) is disposed in a distributed configuration with respect to a plurality of network nodes of the communication network (**base station is coupled to other base stations via the I/O interface 208**, see paragraphs 0037 and 0038).

Regarding claim 24, Laroia discloses the system of claim 29, wherein said channel management control apparatus makes at least 2 channels of said plurality of channels available for use simultaneously by a particular network node to mitigate said external interference (**first type, second type, and third type of communication channels**, see paragraphs 0027, 0028, 0029).

Regarding claim 25, Laroia discloses the system of claim 24, wherein said at least 2 channels transmit identical data simultaneously (**full tone reuse in the third type of communication channel in each of the adjacent sectors**, see paragraph 0029).

Regarding claim 26, Laroia discloses the system of claim 24, wherein said at least 2 channels transmit different portions of an information communication (see paragraph 0020).

Regarding claim 27, Laroia discloses the system of claim 29, wherein the channel management control apparatus makes at least a first channel of the plurality of channels available for use by a particular network node (**first type of communication channel is available for use**) and makes at least a second channel of the plurality of channels available for use by said particular network node (**a second type of communication channel is available for use**, see paragraphs 0027, 0028) to mitigate said external interference (paragraph 0060).

Regarding claim 31, Laroia and Ma disclose all the aspects of claim 29 above. Laroia does not disclose the system of claim 28, wherein the first tier of said channel scheduling strategy assigns transmission time period opportunities to communication network base station nodes to support groups of subscriber station nodes.

However, Ma discloses a time slot scheduling strategy in a cellular communication system wherein a base station controller scheduler assigns a time slot for the associated base stations that are on the active set list of performing soft handoff and the time slots not assigned by the base station controller scheduler are assigned to mobile terminals not participating in a soft handoff (col. 3, lines 15-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of providing a plurality of frequency channels of Laroia with the teaching of Ma in having a base station controller scheduler for scheduling time slot for the base stations and time slots for mobile terminals such that the channel management control apparatus implements at least two tier channel scheduling strategy, wherein the first tier of said channel scheduling strategy assigns transmission time period opportunities to communication network base station nodes to support groups of subscriber station nodes.

The motivation to do so is to facilitate a flexible scheduling for soft handoff mobile terminals via the base station controller while allocating time slots for mobile terminals not operating in a soft handoff mode.

Regarding claim 32, Laroia and Ma disclose all the aspects of claim 31 above. Laroia does not disclose the second tier of the channel scheduling strategy assigns transmission time periods among subscriber station nodes of the groups of subscriber station nodes.

However, Ma discloses a time slot scheduling strategy in a cellular communication system wherein a base station controller scheduler assigns a time slot for the associated base stations that are on the active set list of performing soft handoff and the time slots not assigned by the base station controller scheduler are assigned to mobile terminals not participating in a soft handoff (col. 3, lines 15-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of providing a plurality of frequency channels of Laroia with the teaching of Ma in having a base station controller scheduler for scheduling time slot for the base stations and time slots for mobile terminals such that the channel management control apparatus implements at least two tier channel scheduling strategy, wherein the second tier of the channel scheduling strategy assigns transmission time periods among subscriber station nodes of the groups of subscriber station nodes.

The motivation to do so is to facilitate a flexible scheduling for soft handoff mobile terminals via the base station controller while allocating time slots for mobile terminals not operating in a soft handoff mode.

Regarding claim 33, Laroia discloses the system of claim 29, wherein the channel management control apparatus makes a different channel of the plurality of channels available

for use by a particular network node in an uplink and a downlink (see paragraphs 0027, 0028, 0029 and 0034).

Regarding claim 46, Laroia discloses a wireless broadband access network system comprising:

a base station having a plurality of sectors (see Fig. 1), wherein each of a plurality of channels is associated with each sector of said plurality of sectors (see paragraphs 0027, 0028, 0029); and

Laroia does not disclose a two-tier scheduler in communication with the base station and providing information as to channels of said plurality of channels that are to be activated in parallel with respect to assigned transmission time period opportunities, wherein a first tier of the scheduler executes centrally and assigns time per group of subscriber stations and a second tier of the scheduler executes distributedly and assigns individual time slots within the assigned time to particular subscriber stations of the group of subscriber stations.

However, Ma discloses a time slot scheduling strategy in a cellular communication system wherein a base station controller scheduler assigns a time slot for the associated base stations that are on the active set list of performing soft handoff and the time slots not assigned by the base station controller scheduler are assigned to mobile terminals not participating in a soft handoff (col. 3, lines 15-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of providing a plurality of frequency channels of Laroia with the teaching of Ma in having a base station controller scheduler for scheduling time

slot for the base stations and time slots for mobile terminals such that wireless system of Laroia will comprise a two-tier base station controller scheduler in communication with the base station and providing information as to channels of said plurality of channels that are to be activated in parallel with respect to assigned transmission time period opportunities, wherein a first tier of the scheduler executes centrally and assigns time per group of subscriber stations and a second tier of the scheduler executes distributedly and assigns individual time slots within the assigned time to particular subscriber stations of the group of subscriber stations

The motivation to do so is to facilitate a flexible scheduling for soft handoff mobile terminals via the base station controller while allocating time slots for mobile terminals not operating in a soft handoff mode.

Regarding claim 47, Laroia discloses the system of claim 46, further comprising:

a plurality of base stations having a plurality of sectors (base stations 106 having sectors 1, 2 and 3, see paragraphs 0037 and Fig. 1), wherein each of said plurality of channels is associated with each sector of said plurality of sectors (three types of communication channels are associated with each sector, see paragraphs 0027, 0028, 0029), and wherein said scheduler is in communication with said plurality of base stations (see scheduler module 226 of each base station, see Fig. 2) providing information as to channels of said plurality of channels which are to be activated in parallel with respect to assigned transmission time period opportunities (scheduler module 226 schedules uplink and downlink channels within each sector and each channel segment includes one or more logical tones for a determined duration of time, see paragraph 0044).

Regarding claim 48, Laroia discloses the system of claim 46, wherein said base station comprises:

a plurality of wireless nodes, wherein a wireless node of said plurality of wireless nodes is associated with a sector of said plurality of sectors (a plurality of wireless terminals and end nodes in each sector, see paragraph 0036 and Fig. 1).

Regarding claim 49, Laroia discloses the system of claim 48, wherein said wireless nodes comprise:

an access point (base station 106, Fig. 1) operable according to an unlicensed wireless spectrum protocol (CDMA, see paragraph 0079).

Regarding claim 51, Laroia discloses the system of claim 50, wherein said groups of subscriber stations comprise subscriber stations having similar spatial attributes (wireless terminals 144 and 146 are enclosed within the same sector, see Fig. 1).

Allowable Subject Matter

4. Claims 30, 37-44, 52-54, 57-58, 59, 61, 62, 64-69 are allowed.

In claim 30, a wireless broadband access network system, comprising:

wherein said first tier of said channel scheduling strategy updates channel assignments at a relatively slow pace and wherein said second tier of said channel scheduling strategy updates channel assignments in real-time.

In claim 37, a method for providing wireless communication, the method comprising:
determining compatibility of said spatial signatures by correspondence to a schedule
of active radios vector.

weighting a plurality of schedule of active radios vectors such that a heaviest
weighted schedule of active radios vectors provides for a highest number of parallel
communication links, wherein said plurality of schedule of active radios vectors comprises said
schedule of active radios vector.

In claim 52, a wireless communication system, comprising:
wherein the spatial signature vectors provide information with respect to a combination
of radios of the first set of radios that are acceptable to be activated in parallel when a radio of
the first set of radios is information communication with a corresponding one of the subscriber
stations.

In claim 57, a wireless communication system, comprising:
a plurality of spatial signature vectors setting forth the information for each one of the
subscriber stations with respect to the first set of radios, wherein each of the subscriber stations
has a spatial signature vector of the plurality of spatial signature vectors associated therewith.

In claim 59, a wireless communication system, comprising:

a plurality of spatial signature vectors setting forth the information for each one of the subscriber stations with respect to the first set of radios, wherein each of the subscriber stations has a spatial signature vector of the plurality of spatial signature vectors associated therewith.

In claim 62, a wireless communication system comprising:

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a channel selection controller dynamically selecting a frequency channel of said first and second frequency channels having a highest channel quality metric associated therewith for use in communicating with a subscriber station.

In claim 64, a wireless communication system comprising:

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a controller selecting a valid frame from frames simultaneously transmitted using the first and second frequency channels.

In claim 65, a wireless communication system comprising:

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a controller deinterleaving a framer from data simultaneously transmitted using the first and second frequency channels.

In claim 66, a wireless communication system comprising:

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area.

Response to Arguments

5. Applicant's arguments with respect to claims 1-12, 14 have been considered but they are not persuasive.

In response to applicant's argument on page 2, first paragraph of the Remarks that that there is no suggestion to combine the references Laroia and Kubler, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine is that 27 MHz utilizes low power that is capable of reliably transferring information at

a range of approximately 40 to 100 feet asynchronously at 19.2 kbps and also does not require FCC licensing can be found in paragraph 0380 of the Kubler reference (paragraph 0380).

The claim limitations recited in claim 1 that are of concern here are using “unlicensed frequency band” for carrying frequency channels. Since Larioa already teaches using a plurality of frequency channels in some frequency bands, the only thing Larioa is lacking is using unlicensed frequency band. Therefore, one of ordinary skill in the art will be motivated to modify the system of Larioa with the teaching of using unlicensed frequency in Kubler to take advantage of the benefits given by Kubler when using this frequency band.

Applicant further argued on page 2, third paragraph of the Remarks that Larioa does not disclose external interference sources, the examiner respectfully disagrees. It is noted that that it is interpreted by the examiner that external interference sources are the interferences that one sector exerts on another sector and that each sector is considered as a network itself. In light of this interpretation, the inter-sector interference is the interference presented by one sector as the interference external to another adjacent sector. Therefore, the inter-sector interference reads on the external interference sources as recited in claim 1.

Applicant also argued on page 2, fourth paragraph and page 3, first paragraph of the Remarks that Larioa’s teaching of “classifications of type of information [such as power control, user data and the like] and types of channels may be flexible and may be changed dynamically during operation, ...” does not read on “dynamically determined communication link metrics are used to determine which particular channels of the plurality of channels should be available for use by the network nodes to thereby mitigate interference associated with external interference sources,” the examiner respectfully disagrees. It is first noted that in paragraph 0033 that the

type of channels or types of information being used can be dynamically adjusted based on different system changing conditions such as user bit error rate, nature of the data and so on.

This reads on “dynamically determined communication link metrics are used to determine which particular channels of the plurality of channels should be available for use by the network nodes” as recited in claim 1, the dynamically determined communication metrics are the metrics such as bit error rate, user data rate and so on. In addition, using different block size or different type of information will reduce interference between adjacent sectors (paragraph 0022).

In light of the foregoing, claims 1-12, 14-27, 31-34, 39-45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Laroia et al. (US Publication 2005/0073973) in view of Kubler et al. (US Publication 2005/0254475 A1).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Mew
Work Group 2616

Km

Seema S. Rao
SEEMA S. RAO 11/16/07
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600